

## SAFETY DATA SHEET


Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006, Regulation (EC) 1272/2008, Regulation (EC) 453/2010 and Regulation (EC) 830/2015.



Version 2.0

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<b>SECTION 1: Identification of the substance/mixture and of the company/undertaking</b>	
<b>1.1. Product identifier</b>	
<b>Product name</b>	<b>Mixture of dolime, dolomite and iron oxides</b>
Synonyms	Mixture of CaCO <sub>3</sub> .MgCO <sub>3</sub> , CaO.MgO and Fe <sub>2</sub> O <sub>3</sub>
<b>Trade name</b>	<b>Nadins Hydramix</b>
<b>1.2. Relevant identified uses of the substance or mixture and uses advised against</b>	
Based on current knowledge there are no identified uses of the product, which are advised against.	
Please email <a href="mailto:sales@nadins.co.uk">sales@nadins.co.uk</a> for Identified uses table if required.	
<b>1.3. Details of the supplier of the safety data sheet</b>	
<b>Company</b>	<b>Nadins Lime &amp; Stone Ltd</b>
<b>Address</b>	Unit B – Bay 1 Radnor Park Ind Estate Congleton CW12 4XJ
<b>Telephone</b>	+44 (0)1782 505511
<b>E-mail of competent person responsible for SDS in the MS or in the EU:</b>	sales@nadins.co.uk
<b>1.4. Emergency telephone number</b>	
<b>Emergency telephone number (Europe)</b>	<b>112/999(UK)</b> <b><i>This telephone number is available 24 hours per day, 7 days per week.</i></b>
<b>Poison Information Centre telephone number</b>	+44 (0)121 507 4123 - 0870 600 6266 (emergency – UK only)
<b>Emergency telephone number (Company)</b>	<b>01782 505511</b> <b><i>This telephone number is available during office hours only.</i></b>

<b>SECTION 2: Hazards identification</b>
<b>2.1. Classification of the substance or mixture</b>
STOT SE3, H335, Exposure: Inhalation Skin Irrit.2, H315, Exposure: Dermal Eye Dam.1, H318,
<b>2.2. Label elements</b>
<p><u>Hazard pictograms</u></p>  <p><u>Signal word</u> Danger</p> <p><u>Hazard statements</u> H315: Causes skin irritation. H318: Causes serious eye damage. H335: May cause respiratory irritation.</p> <p><u>Precautionary statements</u> P102: Keep out of reach of children. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P310: Immediately call a POISON CENTER/doctor. P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P501: Dispose of contents/container in accordance with local regulation.</p>
<b>2.3. Other hazards</b>
The substance does not meet the criteria for PBT or vPvB substance. No other hazards identified.




<b>SECTION 3: Composition/information on ingredients</b>						
<b>3.2. Mixture</b>						
Identification of the mixture: Mixture of dolime, dolomite and iron oxides						
Hazardous ingredients:						
Chemical name	CAS-No.	EC-No.	REACH No.	Index-No.	Weight percent	REGULATION (EC) No 1272/2008
Calcium magnesium carbonate	16389-88-1	240-440-2	—	—	>=10 - <=50	—
Calcium magnesium oxide	37247-91-9	253-425-0	01-2119474202-47	—	>=20 - <=70	Skin Irrit. 2 H315 Eye Dam. 1 H318 STOT SE 3 H335
Ferric oxide	1309-37-1	215-168-2	—	—	>=0,5 - <=12	—
<b>SECTION 4: First aid measures</b>						
<b>4.1. Description of first aid measures</b>						
<u>General advice</u>		No known delayed effects. Consult a physician for all exposures except for minor instances.				
<u>Inhalation</u>		Move source of dust or move person to fresh air. Obtain medical attention immediately.				
<u>Skin contact</u> 		Carefully and gently brush the contaminated body surfaces in order to remove all traces of product. Wash affected area immediately with plenty of water. Remove contaminated clothing. If skin irritation persists, call a physician.				
<u>Eye contact</u> 		Rinse immediately with plenty of water and seek medical advice.				
<u>Ingestion</u>		Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention.				
<b>4.2. Most important symptoms and effects, both acute and delayed</b>						
The substance is not acutely toxic via the oral, dermal, or inhalation route. The substance is classified as irritating to skin and the respiratory tract, and entails a risk of serious damage to the eye. There is no concern for adverse systemic effects because local effects (pH-effect) are the major health hazard.						
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>						
Follow the advice given in section 4.1.						



<b>SECTION 5: Firefighting measures</b>	
<b>5.1. Extinguishing media</b>	
Suitable extinguishing media	The product is not combustible. Use a dry powder, foam or CO2 fire extinguisher to extinguish the surrounding fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Avoid humidification. DO NOT use water.
<b>5.2. Special hazards arising from the substance or mixture</b>	
Calcium magnesium oxide reacts with water and generates heat. This may cause risk to flammable material. When heated above 600° C, calcium magnesium carbonate decomposes to produce magnesium oxide (MgO), calcium oxide(CaO), and carbon dioxide(CO2). $\text{CaCO}_3\text{MgCO}_3 \rightarrow \text{MgO} + \text{CaO} + 2\text{CO}_2$ .	
<b>5.3. Advice for firefighters</b>	
Avoid dust formation. Use breathing apparatus. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
<b>SECTION 6: Accidental release measures</b>	
<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
<b>6.1.1. Advice for non-emergency personnel</b>	Ensure adequate ventilation. Keep dust levels to a minimum. Keep unprotected persons away. Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8). Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8). Avoid humidification.
<b>6.1.2. Advice for emergency responders</b>	See section 6.1.1
<b>6.2. Environmental precautions</b>	
Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains (pH rising). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body.	

<b>6.3. Methods and materials for containment and cleaning up</b>	
<p>Avoid dust formation.          Keep the material dry if possible.          Pick up the product mechanically in a dry way.          Use vacuum suction unit, or shovel into bags.          Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations          Keep away from acids.</p>	
<b>6.4. Reference to other sections</b>	
<p>For more information on exposure controls/personal protection or disposal considerations, please check section 8 and 13 and the Annex of the safety data sheet.</p>	
<b>SECTION 7: Handling and storage</b>	
<b>7.1. Precautions for safe handling</b>	
<b>7.1.1. Protective measures</b>	<p>Avoid contact with skin and eyes.          For personal protection see section 8.          Keep dust levels to a minimum. Minimise dust generation. Enclose dust sources, use exhaust ventilation (dust collector at handling points).          Handling systems should preferably be enclosed.          When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.</p>
<b>7.1.2. Advice on general occupational hygiene</b>	<p>Avoid inhalation, ingestion and contact with skin and eyes.          General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.</p>
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	
<p>Store in a dry place.          Minimise exposure to air and moisture to avoid degradation.          Bulk storage should be in purpose designed silos.          Keep out of the reach of children.          Keep away from acids, significant quantities of paper, straw and nitro compounds.          DO NOT use aluminium for transport and storage if there is a risk of contact with water.</p>	
<b>7.3. Specific end use(s)</b>	
<p>Please check the identified uses in table 1 of the Appendix of this SDS.          For more information please see the relevant exposure scenario, available via your</p>	



<b>8.2. Exposure controls</b>	
<p>To control potential exposures, generation of dust should be avoided. Further, appropriate protective equipment is recommended. Eye protection equipment (e.g. goggles or visors) must be worn, unless potential contact with the eye can be excluded by the nature and type of application (i.e. closed process). Additionally, face protection, protective clothing and safety shoes are required to be worn as appropriate.</p> <p>Please check the relevant exposure scenario, given in the Appendix/available via your supplier.</p>	
<b>8.2.1. Appropriate engineering controls</b>	<p>Handling systems should preferably be enclosed or suitable ventilation installed to maintain atmospheric dust below the OES, if not wear suitable protective equipment.</p>
<b>8.2.2. Individual protection measures, such as personal protective equipment</b>	
<b>8.2.2.1. Eye/face protection</b> 	<p>Do not wear contact lenses.</p> <p>For powders, tight fitting goggles with side shields, or wide vision full goggles. It is also advisable to have individual pocket eyewash.</p>
<b>8.2.2.2. Skin protection</b> 	<p>Use approved nitrile impregnated gloves having CE marks.</p> <p>Use clothing fully covering skin, full length pants, long sleeved overalls, with close fittings at openings. Footwear resistant to caustics and avoiding dust penetration.</p>
<b>8.2.2.3. Respiratory protection</b> 	<p>Local ventilation to keep levels below established threshold values is recommended. A suitable particle filter mask is recommended, depending on the expected exposure levels - please check the relevant exposure scenario, given in the Appendix/available via your supplier.</p>
<b>8.2.2.4. Thermal hazards</b>	<p>The substance does not represent a thermal hazard, thus special consideration is not required.</p>
<b>8.2.3. Environmental exposure controls</b>	<p>All ventilation systems should be filtered before discharge to atmosphere.</p> <p>Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains (pH rising). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body. For more information please see the relevant exposure scenario, available via your supplier/given in the Appendix, and check section 2.1: Control of worker exposure.</p>



<b>SECTION 9: Physical and chemical properties</b>	
<b>9.1. Information on basic physical and chemical properties</b>	
Appearance:	Colour: white, off-white, beige, grey Form: solid
Odour:	odourless
Odour Threshold:	Not applicable
pH:	12,4; 20 °C; saturated solution
Melting point:	> 450 °C
Boiling point:	Not applicable (solid with a melting point > 450°C)
Flash point:	Not applicable (solid with a melting point > 450°C)
Evaporation rate:	Not applicable (solid with a melting point > 450°C)
Flammability:	The product is not flammable. lower flammability limit: No data available Upper flammability limit: No data available
Explosive properties:	Non explosive (void of any chemical structures commonly associated with explosive properties). <u>Upper/Lower explosion limit</u> lower: No data available upper: No data available
Vapour pressure:	Not applicable (solid with a melting point > 450°C)
Vapour density:	Not applicable
Relative density:	2,95 g/cm <sup>3</sup> ; Calculation method
Bulk density	700 - 2.150 kg/m <sup>3</sup> ; Calculation method
Solubility(ies):	437 mg/l; Calculation method
Partition coefficient: n-octanol/water:	Not applicable (inorganic substance).
Auto-ignition temperature:	No relative self-ignition temperature below 400°C (study result, EU A.16 method)
Decomposition temperature:	> 600 °C;
Viscosity, kinematic:	Not applicable (solid with a melting point > 450°C)
Oxidizing properties:	No oxidising properties. (Based on the chemical structure, the substance does not contain a surplus of oxygen or any structural groups known to be correlated with a tendency to react exothermally with combustible material).
<b>9.2. Other information</b>	
No data available	
<b>SECTION 10: Stability and reactivity</b>	
<b>10.1. Reactivity</b>	
Calcium magnesium oxide reacts exothermically with water to form calcium dihydroxide.	
<b>10.2. Chemical stability</b>	
When heated above 600° C, calcium magnesium carbonate decomposes to produce magnesium oxide (MgO), calcium oxide(CaO), and carbon dioxide(CO <sub>2</sub> ). CaCO <sub>3</sub> MgCO <sub>3</sub> → MgO + CaO + 2CO <sub>2</sub> .	



<p><b>10.3. Possibility of hazardous reactions</b></p> <p>The product reacts exothermically with acids.</p>
<p><b>10.4. Conditions to avoid</b></p> <p>Minimize exposure to air and moisture to avoid degradation. Exothermic reaction with acids.</p>
<p><b>10.5. Incompatible materials</b></p> <p>Calcium magnesium oxide reacts exothermically with water to form calcium dihydroxide.  <math>\text{CaO.MgO} + \text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2 + \text{MgO} + 1155 \text{ kJ/kg CaO}</math>          The product reacts exothermically with acids to form salts.          Reacts with aluminium and brass in the presence of moisture leading to the production of hydrogen.  <math>\text{CaOMgO} + 2\text{Al} + 7\text{H}_2\text{O} \rightarrow \text{MgO} + \text{Ca(Al(OH)}_4)_2 + 3\text{H}_2\text{O}</math></p>
<p><b>10.6. Hazardous decomposition products</b></p> <p>Decomposes by reaction with strong acids. The product absorbs moisture and carbon dioxide from air to form calcium magnesium carbonate (dolomite), which is a common material in the nature.</p>
<p><b>SECTION 11: Toxicological information</b></p>
<p><b>11.1. Information on toxicological effects</b></p> <p><b>Acute toxicity</b>  <math>\text{CaCO}_3.\text{MgCO}_3</math>          Oral LD50 &gt; 2000 mg/kg bw (rat)          Dermal - Not acutely toxic          Inhalation - No data available          The substance is of low order of acute toxicity by inhalation, dermal and oral routes of exposure.  <math>\text{CaOMgO}</math>          Calcium magnesium oxide is not acutely toxic.          Oral: LD50 &gt; 2000 mg/kg bw (OECD 425, rat)          Dermal: no data available          Inhalation: no data available          Classification for acute toxicity is not warranted.  <math>\text{Fe}_2\text{O}_3</math>          Not acutely toxic</p> <p><b>Serious eye damage/eye irritation</b>  <math>\text{CaCO}_3.\text{MgCO}_3</math>          Not expected to be irritating  <math>\text{CaOMgO}</math>          Calcium oxide causes irreversible lesions in the eye (OECD 405, in vivo, rabbit).          By read across these results are also applicable to the product.          Based on experimental results on a similar substance utilized by read-across, the product requires classification as severely irritating to the eye [Eye Damage 1 (H318 - Causes serious eye damage)].</p>

Fe<sub>2</sub>O<sub>3</sub>

No eye irritation

**Skin corrosion/irritation**

CaCO<sub>3</sub>.MgCO<sub>3</sub>

Not expected to be irritating

CaOMgO

Calcium oxide is irritating to skin (in vivo, rabbit).

Based on experimental results, calcium oxide requires classification as irritating to skin [Skin Irrit 2 (H315 – Causes skin irritation)].

By read across these results are also applicable to the product.

Fe<sub>2</sub>O<sub>3</sub>

No skin irritation

**Respiratory or skin sensitisation**

CaCO<sub>3</sub>.MgCO<sub>3</sub>

Not expected to be irritating

CaOMgO

No data available.

The product is considered not to be a skin sensitiser, based on the nature of the effect (pH shift) and the essential requirement of calcium and magnesium for human nutrition.

Classification for sensitisation is not warranted.

Fe<sub>2</sub>O<sub>3</sub>

No known effect.

**STOT - repeated exposure**

CaCO<sub>3</sub>.MgCO<sub>3</sub>

No organ toxicity observed in repeated dose toxicity tests.

A 90-day oral toxicity study performed on a dolomite-based dietary supplement is available.

This study is supported by three reliable studies performed on calcium carbonate and two performed using magnesium chloride hexahydrate and read across to magnesium carbonate.

All these studies provided NOAELs above the classification limits and it is concluded that dolomite does not require STOT-RE classification according to the criteria described in

Regulation (EC) No 1272/2008..

Read-across with experimental results for calcium carbonate and magnesium carbonate.

CaOMgO

Toxicity of calcium and magnesium via the oral route is addressed by upper intake levels (UL) for adults determined by the Scientific Committee on Food (SCF), being UL = 2500 mg/d, corresponding to 36 mg/kg bw/d (70 kg person) for calcium, and UL = 250 mg/d, corresponding to 3.6 mg/kg bw/d (70 kg person) for magnesium.

Toxicity of the product via the dermal route is not considered as relevant in view of the anticipated insignificant absorption through skin and due to local irritation as the primary health effect (pH-shift).

Toxicity of calcium oxide via inhalation (local effect, irritation of mucous membranes) is addressed by an 8-h TWA determined by the Scientific Committee on Occupational Exposure Limits (SCOEL) of 1 mg/m<sup>3</sup> respirable dust (see section 8.1).

Therefore, classification of the product for toxicity upon prolonged exposure is not required.

Fe<sub>2</sub>O<sub>3</sub>

No data available

### **Carcinogenicity**

**Carcinogenicity** CaCO<sub>3</sub>.MgCO<sub>3</sub> No indications of carcinogenicity. Based on the study performed using magnesium chloride, an analogue of magnesium carbonate, the negative response of calcium carbonate in in vitro genotoxicity studies and lack of evidence of carcinogenic potential from repeated dose toxicity studies, it is concluded that dolomite does not require classification for carcinogenicity according to the criteria described in Regulation (EC) No 1272/2008. Read-across with experimental results for calcium carbonate and magnesium chloride, an analogue of magnesium carbonate.

CaOMgO Both calcium (administered as Ca-lactate) and magnesium (administered as Mg-chloride) are not carcinogenic (experimental results, rat/mouse). The pH effect of the product does not give rise to a carcinogenic risk. Human epidemiological data support lack of any carcinogenic potential of the product. Classification for carcinogenicity is not warranted.

Fe<sub>2</sub>O<sub>3</sub>

None expected

### **Germ cell mutagenicity**

CaCO<sub>3</sub>.MgCO<sub>3</sub>

Not mutagenic.

In vitro genotoxicity studies performed on calcium carbonate and on magnesium chloride, an analogue of magnesium carbonate, were all negative. The results of these studies are read across to dolomite and hence no classification for mutagenicity according to the criteria described in Regulation (EC) No 1272/2008 is required.

CaOMgO

There is no indication for genotoxic/mutagenic effects of either calcium dihydroxide or other calcium or magnesium salts in in vitro studies (gene mutation in bacteria).

In view of the omnipresence and essentiality of Ca and Mg and of the physiological non-relevance of any pH shift induced in aqueous media, the product is obviously void of any genotoxic potential, including germ cell mutagenicity.

Classification for genotoxicity is not warranted.

Fe<sub>2</sub>O<sub>3</sub>

No data available

### **Reproductive toxicity**

CaCO<sub>3</sub>.MgCO<sub>3</sub>

No indications of developmental toxicity.

In a 28 day repeat dose oral toxicity study combined with a reproduction/ developmental toxicity screening test using calcium carbonate, no treatment-related effects were observed for reproduction and the NOEL for reproductive toxicity was considered to be 1000 mg/kg bw/day.

In a similar study performed using magnesium chloride the NOAEL for reproduction/ developmental toxicity was found to be 1000 mg/kg bw/day, equivalent to 414 mg/kg bw/day as magnesium carbonate. It is concluded that dolomite does not require classification for reproductive toxicity according to the criteria described in Regulation (EC) No 1272/2008.

Read-across with experimental results for calcium carbonate and magnesium chloride, an analogue of magnesium carbonate.

**CaOMgO**

Both calcium (administered as Ca-carbonate) and magnesium (administered as Mg-sulphate) are not toxic to reproduction (experimental results, mouse/rat).

The pH effect does not give rise to a reproductive risk.

Human epidemiological data support lack of any potential for reproductive toxicity of the product.

Both in animal studies and human clinical studies on various calcium and magnesium salts no reproductive or developmental effects were detected. Also see the Scientific Committee on Food (Section 16.6). Thus, the product is not toxic for reproduction and/or development.

Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

**Fe2O3**

None known.

**STOT - single exposure**

**CaCO3.MgCO3**

No organ toxicity observed in acute oral or dermal tests.

**CaOMgO**

From human data it is concluded that calcium oxide is irritating to the respiratory tract.

As summarised and evaluated in the SCOEL recommendation (Anonymous, 2008), based on human data calcium oxide is classified as irritating to the respiratory system [STOT SE 3 (H335 – May cause respiratory irritation)].

By read across these results are also applicable to the product.

**Fe2O3**

No data available

**Aspiration hazard**

**CaCO3.MgCO3**

No aspiration hazard envisaged.

**CaOMgO**

The product is not known to present an aspiration hazard.

**Fe2O3**

No data available

**SECTION 12: Ecological information**

**12.1. Toxicity**

**12.1.1. Toxicity to fish**

CaCO3.MgCO3: Not acutely toxic, Toxicity threshold is above solubility of calcium magnesium carbonate.  
 NOEC; 33 d; 1.006 mg/l;  
 CaOMgO: LC50 (96h) for freshwater fish: 50.6 mg/l (calcium dihydroxide)  
 LC50 (96h) for marine water fish: 457 mg/l (calcium dihydroxide)  
 Fe2O3: LC0; 96 h; > 50.000 mg/l;

**12.1.2. Toxicity to aquatic invertebrates**

CaCO3.MgCO3: Not acutely toxic, Toxicity threshold is above solubility of calcium magnesium carbonate.  
 LC50 >100% v/v; 96 h; 80,6 mg/l;



	<p>CaOMgO: EC50 (48h) for freshwater invertebrates: 49.1 mg/l (calcium dihydroxide)          LC50 (96h) for marine water invertebrates: 158 mg/l (calcium dihydroxide)          Fe2O3: Daphnia (water flea); EC50; 48 h; &gt; 100 mg/l;</p>
<b>12.1.3. Toxicity to aquatic plants</b>	<p>CaCO3.MgCO3: Not acutely toxic          CaOMgO: EC50 (72h) for freshwater algae: 184.57 mg/l (calcium dihydroxide)          NOEC (72h) for freshwater algae: 48 mg/l (calcium dihydroxide)          Fe2O3: Anabaena flos-aquae (cyanobacterium); EC50; 16 h; &gt; 8,59 mg/l;</p>
<b>12.1.4. Toxicity to microorganisms / Toxicity to bacteria</b>	<p>CaCO3.MgCO3: activated sludge; EC50; 3 h; &gt; 1.000 mg/l; OECD Test Guideline 209; Not toxic          CaOMgO: At high concentration, through the rise of temperature and pH, the product is used for disinfection of sewage sludge.          Fe2O3: activated sludge; EC50; 3 h; &gt; 10.000 mg/l;</p>
<b>12.1.5. Toxicity to daphnia and other aquatic invertebrates</b>	<p>CaCO3.MgCO3: Not acutely toxic          CaOMgO: NOEC (14d) for marine water invertebrates: 32mg/l (calcium dihydroxide)          Fe2O3: Gammarus fasciatus (freshwater shrimp); EC50; 5 d; 8,48 mg/l;</p>
<b>12.1.6. Toxicity to soil dwelling organisms</b>	<p>CaCO3.MgCO3: Not toxic          CaOMgO: EC10/LC10 or NOEC for soil macroorganisms: 2000 mg/kg soil dw (calcium dihydroxide)          EC10/LC10 or NOEC for soil microorganisms: 12000 mg/kg soil dw (calcium dihydroxide)          Fe2O3: study scientifically unjustified</p>
<b>12.1.7. Toxicity to terrestrial plants</b>	<p>CaCO3.MgCO3: Not acutely toxic          CaOMgO: NOEC (21d) for terrestrial plants: 1080 mg/kg (calcium dihydroxide)          Fe2O3: study scientifically unjustified</p>
<b>12.1.8. Other effects</b>	<p>Acute pH-effect. Although this product is useful to correct water acidity, an excess of more than 1 g/l may be harmful to aquatic life. pH-value of &gt; 12 will rapidly decrease as result of dilution and carbonation.</p>
<b>12.1.9. Other information</b>	<p>The results by read across are also applicable to calcium magnesium oxide, since in contact with moisture calcium hydroxide is formed.</p>
<b>12.2. Persistence and degradability</b>	
Not relevant for inorganic substances.	

<b>12.3. Bioaccumulative potential</b>
Not relevant for inorganic substances.
<b>12.4. Mobility in soil</b>
Calcium magnesium oxide reacts with water and/or carbon dioxide to form respectively calcium dihydroxide and/or calcium carbonate, which are sparingly soluble, and present a low mobility in most soils.
<b>12.5. Results of PBT and vPvB assessment</b>
Not relevant for inorganic substances.
<b>12.6. Other adverse effects</b>
Not applicable No other adverse effects are identified.
<b>SECTION 13: Disposal considerations</b>
<b>13.1. Waste treatment methods</b>
Reuse or recycle whenever possible. If the reuse or recycling is not possible, disposal must be made according to local and national regulation. Processing, use or contamination of this product may change the waste management options. Waste classification code must be determined at the point of waste generation. Dispose of container and unused contents in accordance with applicable member state and local requirements. The used packaging is only meant for packing this product; it should not be reused for other purposes. If the used packaging contains more than 3 % of the lime product, it must be considered as hazardous.
<b>SECTION 14: Transport information</b>
Calcium oxide is not classified as hazardous for transport (ADR (Road), RID (Rail)).
<b>14.1. UN number</b>
<b>UN 1910</b>
<b>14.2. UN proper shipping name</b>
<b>UN 1910</b> , Calcium oxide
<b>14.3. Transport hazard class(es)</b>
<b>ADR</b> Transport hazard class      8
<b>IMDG</b>

Transport hazard class : 8

Hazard Labels : 8



**IATA**

Transport hazard class : 8

Hazard Labels : 8



**ADN**

Transport hazard class : 8

**RID**

Transport hazard class : 8

**14.4. Packing group**

**ADR**

Packing group : Not assigned by regulation

**IMDG**

Packing group : Not assigned by regulation

**IATA**

Packing group : III

**ADN**

Packing group : Not assigned by regulation



<b>RID</b>	
Packing group	: Not assigned by regulation
<b>14.5. Environmental hazards</b>	
None	
<b>14.6. Special precautions for user</b>	
Avoid any release of dust during transportation, by using air-tight tanks for powders and covered trucks for pebbles.	
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	
not regulated	
<b>SECTION 15: Regulatory information</b>	
<b>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
Authorisations	Not required
Restrictions on use	None
Other regulations (European Union)	The product is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.
National regulatory information	German legislation on water endangering substances VwVwS slightly water endangering (WGK 1)
<b>15.2. Chemical safety assessment</b>	
A Chemical Safety Assessment has been carried out for CaOMgO.	
<b>SECTION 16: Other information</b>	
Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.	
<b>16.1. Hazard statements</b>	
<b>Preparation</b>	H315: Causes skin irritation. H318: Causes serious eye damage. H335: May cause respiratory irritation.
<b>Components</b>	
<b>Calcium magnesium carbonate</b>	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
<b>Calcium magnesium oxide</b>	H315: Causes skin irritation. H318: Causes serious eye damage. H335: May cause respiratory irritation.



<b>Ferric oxide</b>	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
<b>16.2. Precautionary statements</b>	
	P102: Keep out of reach of children. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P310: Immediately call a POISON CENTER/doctor. P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P501: Dispose of contents/container in accordance with local regulation.
<b>16.3. Abbreviations</b>	
	DNEL: Derived no effect level EC50: median effective concentration LC50: median lethal concentration LD50: median lethal dose NOEC: no observable effect concentration OEL: occupational exposure limit PBT: persistent, bioaccumulative, toxic chemical PNEC: predicted no-effect concentration SDS: Safety data sheet STEL: short-term exposure limit STOT: specific target organ toxicity TWA: time weighted average vPvB: very persistent, very bioaccumulative chemical
<b>16.4. Literary reference</b>	
Anonymous, 2006: Tolerable upper intake levels for vitamins and minerals Scientific Committee on Food, European Food Safety Authority, ISBN: 92-9199-014-0 [SCF document] Anonymous, 2008: Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL) for calcium oxide (CaO) and calcium dihydroxide (Ca(OH) <sub>2</sub> ), European Commission, DG Employment, Social Affairs and Equal Opportunities, SCOEL/SUM/137 February 2008	
Unless identified otherwise, the classification of the mixture is derived by hazard assessment of the individual mixture constituents [Regulation (EC) No 1272/2008].	



### **16.5. Additions, Deletions, Revisions**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

### **Disclaimer**

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

